

- With 91 to 95% certainty, the IPCC concluded that “Most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations.”
- With regard to observed and projected temperature rise, the WGI report found: Anthropogenic (human produced) greenhouse gas emissions have driven up global average temperatures by about 0.75° C during the last century.
- Eleven of the last twelve years (1995 to 2006) rank among the 12 warmest years in the instrumental record of global surface temperature (since 1850).
- Absent sharp near-term emissions reductions, global temperatures are estimated to increase by about 4° C (7.2° F), with the potential to go as high as 7° C (12.6° F) or higher.
- The Working Group I report also reported on important ocean and carbon-cycle issues:
 - Increasing atmospheric carbon dioxide concentrations are causing a chemical change in the world’s oceans, making the water more acidic. Acidification harms marine life forms like coral reefs, snails, and other organisms that are vital supports for the food chain.
 - Feedback mechanisms in the global carbon cycle will begin adding previously stored carbon to the atmosphere as the climate system warms. If emissions continue growing as they are now, CO₂ feedback is projected to increase global average warming in 2100 by more than 1° C (in addition to existing projections).
- Working Group II – Impacts on North America and Summary for Policy Makers:
 - The report stated that the comparatively small amount of warming that has already occurred is contributing “to the global burden of disease and premature deaths” through temperature and precipitation changes, sea-level rise, and the increasing frequency of extreme events.
 - Regarding future impacts, the IPCC report states that “for increases in global average temperature exceeding 1.5° C to 2.5° C (2.7° F to 4.5° F), there are projected to be predominantly negative consequences for biodiversity and ecosystem goods and services, e.g., water and food supply.” Higher levels of greenhouse gases will have a devastating human impact.
 - By mid-century, more than a billion people will face water shortages and hunger, including 600 million people in Africa alone.
 - Weather extremes, food and water scarcity, and climate-related public health threats are projected to displace between 150 million and 1 billion people as climate change unfolds.
 - Damage to ecosystems and wildlife is projected to reach devastating levels.
 - A 1.0° C increase in local temperatures at lower latitudes (especially seasonally dry and tropical regions) is projected to reduce crop productivity, which would increase risk of hunger.
 - Widespread coral mortality is expected with 2.0° C warming and higher.
 - With a warming of 3.0° C or higher, agricultural systems will begin to break down, causing a global decrease in food production potential.
 - With about a 4° C increase in global temperatures, more than 40% of known plant and animal species are projected to go extinct.